In the claims

1. (original) A sensing mechanism for an image-forming device comprising:

a first light source positioned incident to a first side of media;

a second light source positioned incident to a second side of the media opposite of the first side of the media;

a detector positioned incident to the second side of the media to detect first light transmitted through the media as output by the first light source and to detect second light reflected off the media as output by the second light source; and,

a controller to detect at least one characteristic of the media based on a ratio of the first light to the second light.

2. (original) The sensing mechanism of claim 1, wherein the first light source and the second light source are turned on and off in succession, such that when the first light source is outputting light the second light source is not outputting light and when the second light source is outputting light the first light source is not outputting light.

3. (original) The sensing mechanism of claim 2, wherein the first light source and the second light source are turned on and off in succession at a frequency having a corresponding period, such that the controller is to detect the at least one characteristic of the media based on the ratio of the first light to the second light as measured after at least one occurrence of the corresponding period.

4. (original) The sensing mechanism of claim 2, wherein the first light source and the second light source are turned on and off in succession at a frequency having a corresponding period,

such that the controller is to detect the at least one characteristic of the media based on the ratio of the first light to the second light as measured after a length of time greater than the corresponding period by at least a factor of ten.

5. (original) The sensing mechanism of claim 1, wherein each of the first light source and the second light source comprises a light-emitting diode (LED).

6. (original) The sensing mechanism of claim 1, wherein the first light source is aimed at a right angle to the media, and the second light is aimed at an oblique angle to the media.

7. (original) The sensing mechanism of claim 1, wherein the first light source is aimed at a right angle to the media, and the second light is aimed an angle to the detector in accordance with Snell's Law.

8. (original) The sensing mechanism of claim 1, wherein the detector comprises a phototransistor.

9. (original) The sensing mechanism of claim 1, wherein the at least one characteristic of the media comprises a media type, such that the sensing mechanism functions as at least a media type-sensing mechanism.

10. (original) The sensing mechanism of claim 9, wherein the media type is selected from a plurality of media types comprising plain paper media, bond paper media, glossy media, and transparency media.

11. (original) The sensing mechanism of claim 1, wherein the at least one characteristic of the media comprises an edge of the media, such that the sensing mechanism functions as at least an edge-sensing mechanism.

12. (original) The sensing mechanism of claim 1, wherein the at least one characteristic of the media comprises whether the media comprises a plurality of sheets, such that the sensing mechanism functions as at least a multi-pick sensing mechanism.

13. (original) The sensing mechanism of claim 1, wherein the at least one characteristic of the media comprises a code imprinted on the second side of the media.

14. (original) The sensing mechanism of claim 13, wherein the code identifies at least a media type of the media.

15. (original) An image-forming device comprising:

an image-forming mechanism to form an image on media;

a media-moving mechanism to move the media through the image-forming device; and,

a sensing mechanism to detect at least one characteristic of the media as the media is moved through the image-forming device based on a ratio of light transmitted through the media and light reflected off the media.

16. (original) The image-forming device of claim 15, wherein the sensing mechanism comprises:

a plurality of light sources to generate the light transmitted through the media and the light reflected off the media;

at least one detector to detect the light transmitted through the media and the light reflected off the media; and,

a controller to detect the at least one characteristic of the media based on the ratio of the light transmitted through the media and the light reflected off the media.

17. (original) The image-forming device of claim 16, wherein the controller is further to turn the plurality of light sources on and off in succession at a frequency.

18. (original) The image-forming device of claim 15, wherein the at least one characteristic comprises one or more of: a media type of the media; an edge of the media; whether the media comprises a plurality of sheets; and, a code imprinted on the media.

19. (original) The image-forming device of claim 15, wherein the image-forming mechanism is an inkjet-printing mechanism, such that the image-forming device is an inkjet-printing device.

20. (original) An image-forming device comprising:

means for forming an image on media;

means for moving the media through the image-forming device; and,

means for detecting at least one characteristic of the media as the media is moved through the image-forming device based on first light transmitted through the media and second light reflected off the media independent of distances at which the first light and the second light are detected.

21. (original) The image-forming device of claim 20, wherein the means for detecting is for detecting the at least one characteristic of the media based on a ratio of the first light to the second light.

22. (original) The image-forming device of claim 20, wherein the means for forming the image on the media is for ejecting ink onto the media, such that the image-forming device is an inkjet-printing device.

23. (original) A method comprising:

turning on and off in succession a first light source and a second light source positioned incident to opposite sides of media;

detecting first light transmitted through the media by the first light source and second light reflected off the media by the second light source; and,

determining at least one characteristic of the media based on the first light and the second light detected.

24. (original) The method of claim 23, wherein turning on and off in succession the first light source and the second light source comprises turning on and off in succession the first light source and the second light source at a frequency having a corresponding period, wherein detecting the first light and the second light comprises detecting the first light and the second light over at least one occurrence of the corresponding period.

25. (original) The method of claim 23, wherein turning on and off in succession the first light source and the second light source comprises turning on and off in succession the first light source and the second light source at a frequency having a corresponding period, wherein detecting the first light and the second light comprises detecting the first light and the second light over a length of time greater than the corresponding period by at least a factor of ten.

26. (original) The method of claim 23, wherein determining the at least one characteristic of the media comprises determining the at least one characteristic of the media based on a ratio of the first light to the second light.

27. (original) The method of claim 26, wherein determining the at least one characteristic of the media comprises concluding that the media is plain paper media where the ratio is substantially equal to 1.0.

28. (original) The method of claim 26, wherein determining the at least one characteristic of the media comprises concluding that the media is transparency media where the ratio is greater than 1.5.

29. (original) The method of claim 26, wherein determining the at least one characteristic of the media comprises concluding that the media is glossy media where the ratio is substantially equal to 0.5 and the second light has a detected value of greater than 75%.

30. (original) The method of claim 26, wherein determining the at least one characteristic of the media comprises concluding that the media is bond paper media where the ratio is substantially equal to 0.5 and the second light has a detected value of less than 75%.

31. (original) The method of claim 23, wherein determining the at least one characteristic of the media comprises concluding that a no media-load situation has occurred where a detected value of the first light is substantially equal to 100% and a detected value of the second light is substantially equal to 0%.

32. (original) The method of claim 23, wherein determining the at least one characteristic of the media comprises sensing an edge of the media when modulation of at least one of a detected value of the first light and a detected value of a second light initially occurs.

33. (original) The method of claim 23, wherein determining the at least one characteristic of the media comprises sensing a code imprinted on the media where modulation of a detected value of the first light occurs and where the modulation is recognizable.

34. (original) The method of claim 23, wherein determining the at least one characteristic of the media comprises concluding that a multiple media sheet-pick situation has occurred where modulation of a detected value of the first light occurs and where the modulation is unrecognizable.

35. (original) The method of claim 23, wherein determining the at least one characteristic of the media comprises determining at least one of: a media type of the media; an edge of the media; whether the media comprises a plurality of sheets; and, a code imprinted on the media.